

Remarks

Claims 1-15 were pending.

Claims 1, 11 and 12 are amended.

Claims 2-9 and 13-15 are as previously presented.

Claim 10 is cancelled.

The application now contains claims 1-9 and 11-15.

Claim 1 is amended to incorporate the limitations of now cancelled claim 10. Claims 11 and 12 are amended to reflect the amendments to claim 1. Thus claim 11 is amended to delete redundant material from lines 2 and 3 and by deleting the phrase "at least one said" in line 4 inserting in its stead the word "the". Claim 12 is amended by making the claim dependent on claim 1, and in line 3 deleting the phrase "at least one" inserting in its stead "the cationic liquid dispersion" and deleting the redundant "according to claim 1".

Support is inherent in the claims. No new matter is added.

Rejections

Claims 1-15 are rejected under 35 USC 103(a) as being unpatentable over Green et. al., US 6,365,656 in view of Cockroft et.al., WO 0240622 in view of Lentini et. al., US 5,665,656.

Applicants respectfully traverse the rejections.

Applicants respectfully emphasize that the term "emulsion polymerization" has real physical significance. The formation of an emulsion will occur in either an emulsion polymerization or in a reverse phase emulsion polymerization. However, the two methods are different and are known to produce different polymers. In a reverse phase emulsion polymerization, the monomers are dispersed into the oil phase, even if added as an aqueous mixture, and the formation of the polymer microparticles is determined by the size of the suspended monomer droplets in the oil phase. In a "normal" emulsion polymerization, polymerization occurs in micelles that form in the aqueous phase. These different reaction environments also impact the nature of the polymer formed.

I this light, the inclusion in claim 1 of " wherein the monomers I and II are combined in an aqueous phase which is mixed with an oil phase and polymerized" was unnecessary and unfortunate in that it obscured somewhat the difference between Green, which discloses polymers prepared using a reverse phase emulsion polymerization process, and the instant emulsion polymerization. Removal of this phrase in some ways would add clarity to the claim, but may be seen as broadening the claim which, if seen as broadening, would be improper after final.

Applicants again respectfully point to this difference between the instant process and that of Green. In particular, Applicants note that Green reinforces the divergent features of reverse phase emulsion in the passage cited by the examiner, col.7, lines 9-27 by noting the importance of preparing an "emulsion of the required fine particle size", which as noted above is a determining feature of reverse phase emulsion polymerization. Further, in column 6, lines 17-23, Green specifically notes that reverse phase polymerization as carried out therein occurs with monomers in a "hydrophobic liquid phase" according to US 4,628,078, incorporated therein by reference, which specifically notes that polymers prepared by the method have different properties than similar polymers, e.g., '078, col 2, lines 5-9. Applicants therefore believe that it is clear that different polymers can be prepared by emulsion polymerization than are prepared by reverse phase emulsion polymerization even if the same monomers are used.

Applicants therefore respectfully maintain that Green does not provide the instant polymers. Also, Cockroft and Lentini also fail to provide the emulsion polymerization process and therefore fail to overcome this deficiency. Therefore, the combined cited art does not meet the limitations of the instantly amended claims.

Applicants therefore respectfully submit that the rejections under 35 USC 103(a) over Green et. al., US 6,365,656 in view of Cockroft et.al., WO 0240622 in view of Lentini et. al., US 5,665,656 are overcome and kindly ask that they be withdrawn.

Claims 1-3, 5-9 and 13-14 are rejected under 35 USC 102(b) as anticipated by Robinson et al., EP 247,774.

Applicants respectfully traverse the rejections. The instant amendments incorporate the limitations of claim 10 into claim 1 thus obviating the 102(b) rejections.

Claims 1-15 are rejected under 35 USC 103(a) as being unpatentable over Green et. al., US 6,365,656 in view of Robinson et al., EP 247,774.

Applicants respectfully traverse the rejections.

Robinson discloses a method of preparing polymers in which an emulsion of an aqueous phase containing ionic and cationic monomers and an oil phase is formed after which an additional amount of cationic monomers are then added. Polymers prepared in this manner exhibit improved performance characteristics. The instant polymers are not prepared according to the process of Robinson.

Robinson includes comparative examples of a cationic copolymer prepared from acrylamide using standard emulsion polymerization techniques similar to the instant process. However, acrylamide is not included as a monomer in the instant claims.

In considering Robinson, Applicants respectfully point out that Robinson does not prepare polymers of the instant invention by any method. Also, Robinson explicitly teaches that preparation of polymers similar to the instant polymers and according to the procedure of the instant invention are inferior to polymers produced according to Robinson. Thus, not only does Robinson not provide the instant polymers, Robinson explicitly directs one away from the instant method.

Applicants also respectfully suggest that the combination of Robinson, directed at products useful in paper manufacturing and sewage treatment, with Green in an attempt to arrive at the instant personal care compositions is unlikely given the divergent nature of the inventions. Nonetheless, given the explicit teaching in Robinson that emulsion polymerization as found in the instant invention yields inferior products, Applicants respectfully assert that said combination does not provide or suggest the instant limitations.

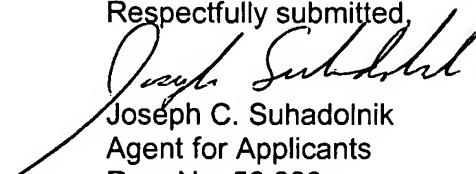
Applicants therefore respectfully submit that none of the cited art, singly or in combination, guides one to prepare the instant personal care compositions by preparing the instant polymers by emulsion polymerization.

Thus Applicants respectfully submit that all rejections have been addressed and are overcome and kindly ask that they be withdrawn and that claims 19 and 11-15 be found allowable.

In the event that minor amendments will further prosecution, Applicants request that the examiner contact the undersigned representative.

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